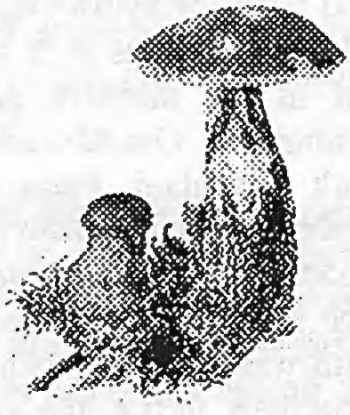
Fran Hanrahan

The Ballarat Naturalist

July 2004



Members' Presentations

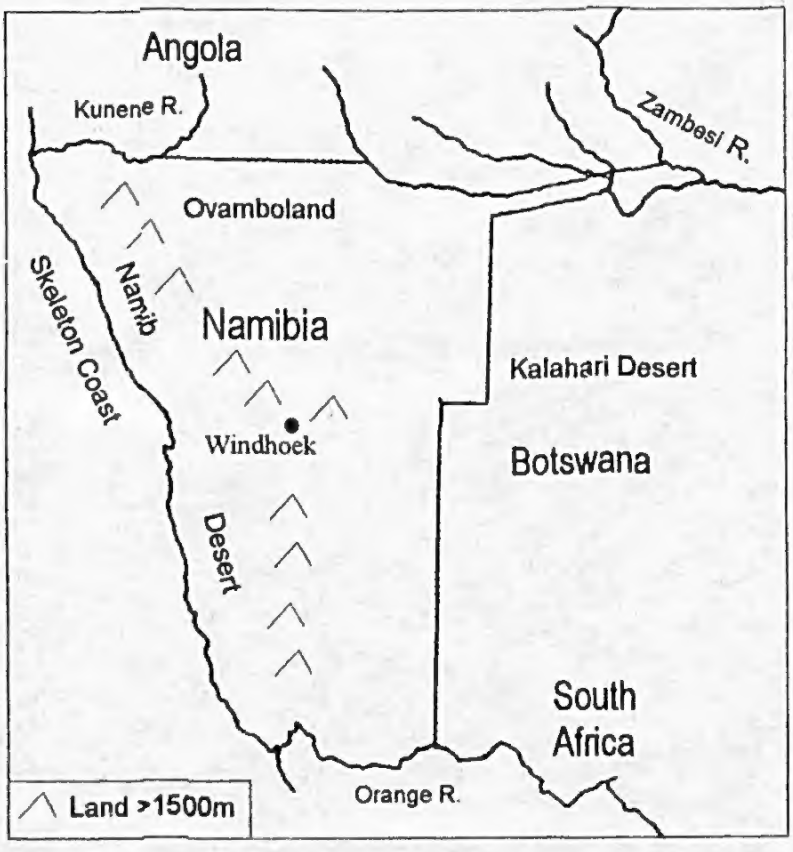
Fran Hanrahan: Desert Life of Namibia

Fran spent two years working in Namibia as a UN volunteer teaching Maths and Science in secondary schools. From a comprehensive collection of publications Fran showed us images depicting the geography, geology and natural history of the country, including some unique examples of its wildlife.

Namibia extends over latitudes equivalent to the distance between Broome and Geraldton—about 1300Km x 600Km; its highest point is > 2500m and the capital, Windhoek is located in the high range which extends north-south through the middle of the country. Of the population of 2 million, most live in the capital, and in the north where people grow cereal crops and raise cattle and goats.

The nation is bounded by the Namib Desert on the west coast and the Kalahari Desert in the east. No rivers run except on the northern and southern boundaries e.g. the Orange, Zambezi and Kunene. The climate is continental tropical with most parts bone dry for years at a time; any rain falls in irregular downpours and much of it filters through to underground aquifers and artesian basins. More important is the fog which comes in from the NW, reaching 50-100Km inland; many plants and creatures are adapted to use the moisture which condenses on them from the fog. Temperatures can reach 48° but the highlands are frosty in winter.

Much of the infrastructure was developed by South Africa (during its occupation of the country prior to independence in 1990) to facilitate army movements, such as long straight roads. However spectacular scenery such as the Fish River Gorge, second only to the Grand Canyon, is 500m deep, 161Km long and 27Km wide. Coastal sand dunes reach 300m in height and offer opportunities for "skiing"! The coast is often known as the 'Skeleton Coast' owing to the large number of ships which came to grief on the ever-shifting sandbanks in the fog.



The Kunene River in the NW marks the border with Angola. Its valuable water is channelled south for domestic and agricultural use, and used for hydro-electric power where it tumbles over falls. Typical of the northern part of the country is Ovamboland studded with Makalani Palm *Hyphaene ventricosa* and occasional massive Baobab trees *Adansinia digitata.* The many shallow depressions fill with water in good rainy seasons. Relatively fertile, the area is dotted with kraals formed by dense brush fences, behind which are wooden huts with thatched roofs. Crops include maize and millet, and cattle are grazed, while fish are caught in the ephemeral lakes. However many people have left the area in search of paid employment in the cities.

Increasing population has led to overgrazing and deforestation; drought-resistant vegetation has decreased as cow dung is now being used for fuel and soils are less fertile. Compaction of the soil by herds and lack of vegetation results in less rainwater being absorbed thereby promoting wind and water erosion. Blue gum plantations have been established but the success of such projects is hampered by periods of drought.

Fran mentioned some geological features of significance: a 62-tonne meteorite composed of iron, nickel and chrome: dinosaur footprints left in damp mud which later solidified, was buried by drifting dunes then revealed once again by erosion. Most valuable of course are the deposits of diamonds, eroded from volcanic pipes and carried by water down to the coast where the diamond-rich gravels are mined.

Acacias such as *A. arenaria* are the predominant trees in the thornbush savanna, their thorns up to 6cm long; Baobabs grow up to 40m in girth, storing water in their trunks which can be used by humans and animals such as elephants capable of pulling the tree to pieces. Quiver tree *Aloe dichotoma* is a hardy waxy-trunked plant which was used by the Bushmen who fashioned quivers from its branches.

The spectacular *Welwitschia mirabilas* is a unique 2-leaved member of the conifer family which only occurs in a narrow belt from central Namibia to the Angola border. Separate male and female plants use wind for pollination and fertilised seeds can with-

stand years of drought before germinating after a rare downpour. The 2 leaves grow continuously splitting into strips. The outer parts of the ribbon-like leaves wither at the ends from the onslaught of sun and sand. They have both long tap roots, and shallow surface roots which can make use of the moisture from the fog. Plants may be hundreds of years old, despite attracting elephants and antelopes who extract moisture from the leaves. Soil compaction around the roots can prevent moisture from the fog being absorbed.

Birds can be viewed from floating observation decks on the wetlands near flowing rivers. Thousands of flamingoes gather, while the African Pelican lays its eggs in the middle of dry lake beds miles from the nearest source of fish; much energy is used up bringing food back for the chicks. Secretary birds have strange "quills" protruding from their necks, while the legs are covered in scales as protection against the snakes and small mammals they hunt. Social weaver birds build colonial nests which may be used—often at the same time—by other creatures! The tiny Scops Owl is only 18cm high, its cryptic colouring providing beautiful camouflage as its sits in a Mopane tree.

A close-up of two African bullfrogs prompted a startled reaction from the audience as Fran explained how aggressive they were and that they were the size of dinner plates! The smaller grey tree frogs *Chiromantis xerampelina* lay their eggs in the branches, male and females together whipping up the albumen of the egg mass with heir hind feet until a mass of froth is produced enclosing tiny yellow yolks. The tadpoles drop to the water beneath.

Cape Fur Seals have colonised mainland spots and are predated by the Black-backed Jackal. Springbok graze young succulent grasses which are a source of moisture; they are capable of speeds up to 90kph with leaps of up to 15m.

Gail Whyte: Environmental Weeds

Gail recently completed a Diploma in Natural Resource Management and has become very interested in the problem of weeds, both exotic and those which are native but have become a problem outside the areas where they are endemic. She brought in a considerable selection of weeds collected from the local area and explained where they originated, how they had been spread and why they were problematical. Examples included forget-me-nots, rampant on Mt. Buninyong and along the Yarrowee Creek; Bluebell Creeper originating in W.A.; Cotoneaster, Sweet Pittosporum and Irish Strawberry, the latter very common in Creswick especially along the La Gerche Walk.

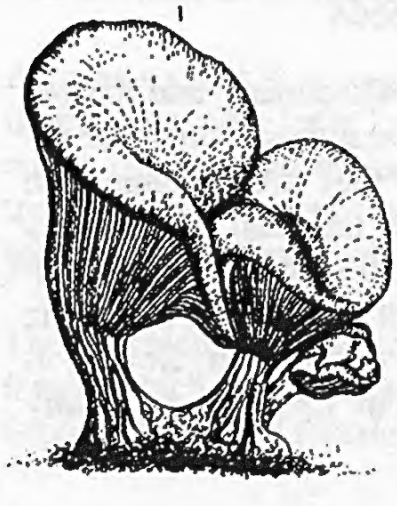
Methods of dispersal include wind, sticking to fur and clothing of humans and animals, through the gut of birds and simply by gravity. Gail showed us an extensive library of publications on the topic and indicated that she had been involved in a lot of weed-pulling!

Greg Binns & Maureen Christie: Bird Reserves of the UK

Greg outlined the different types of reserves and the varied organisations established to preserve habitats of many birds, both resident and migratory. He mentioned the National Trust, RSPB, county councils, English Nature, to name a few. Slides of the signage illustrated his points and he emphasised the sheer number of such places in the UK, using as an example the 12 reserves along a 40Km stretch of the north Norfolk coast. Whilst some reserves are left in their natural state, others have the water levels controlled to suit various birds at different times of the year, such as bitterns. Facilities such as hides were shown. Impressive were the shots of the cliffs at St. Bee's Head, the largest seabird colony on the west coast with fulmars, guillemots, kittiwakes and puffins.

Maureen described the relatively new Scottish Seabird Centre at North Berwick with the offshore Bass Rock, home to many thousands of birds including the largest gannet colony in the UK. Located on a promontory the centre is designed in a shape which follows the contours of the land, and is made of local materials with drystone walls. It offers a 360° view from its observation decks, with telescopes, a bookshop and auditorium. Remote cameras enable the visitor to see the action on the islands. It is very handy for visitors to Edinburgh and should not be missed.

Greg described his trip to the Farne Islands where puffins and guillemots and others can be seen plus the Grey and Common Seal; he was most impressed by the Welsh Wildlife Centre with its walks through wetlands, and the walks along the spectacular Pembrokeshire coastline. He mentioned reserves set aside for specific birds such as the bearded tit and yellow wagtails, the red kite and English chough.



Excursion: Fungi

Leader: Les Hanrahan

*The numbers after the botanical names refer to the page numbers in *Australian Fungi illustrated* by I. R. McCann, published by Macdown Productions.

On Sunday 6 June, a procession of five cars set out along the Western Freeway as far as the Wallace turnoff. At that point we turned left and proceeded along Ormond Rd, passing by Springbank (originally called Ormond).

Barkstead Pine and Barkstead Eucalypt Forest
Once on the Barkstead Road we took a left turn into a pine plantation. The orange-red colours of the large and plentiful fungi under the trees were impossible to miss. Throughout the day the fungi we saw were varied greatly in colour. Among the colours we saw were many shades of red, purple, green, blue, orange, brown, yellow, black and white. Dyes are obtained from fungi, for example, the Russian army obtained the dye for the uniforms from the Horse Dropping Fungus *Pisolithus tinctofius.*

The Fly Agaric *Amanita muscaria* 9 under the introduced pines trees formed a carpet fungi with its bright red with white spots. These fungi when young have a veil which covers the whole organism. This is broken as the fungi grows with the broken lines at the edge of the top and around the base. Also under introduced pines brown, sticky-topped pored fungi, Slippery Jack *Suillus luteus* 61.

A number of *Mycenae* were seen including Blue Pixie Parasol *Mycena interrupta* 54 on logs in the wet forest and *Mycena epipterygia* and others, often with furry bases on their stems. Also on many decaying logs was Pretty Horn *Calocera* 90.

Among the other fungi found in the bushland were Wood Blewet *Lepista nuda* 49 with its purple tinge all over, Jelly Bells *Heterotextus miltinus*, Variable Crep *Crepidotus variabilis* 27 Earthball *Scleroderma* 104 with its solid dark grey centre, Emperor Cortinar *Cortinarius archeri* 15 with its purple colour on all parts of the fungus, Belly Buttons *Omphalina umbellifera* 56, *Hypholoma sublateritium*, and *H. fasciculare.*

Then we headed towards our next stop in the Wombat Forest, going via Sailor's Falls where we saw only a minute trickle of water over the Falls.

Coral Fungus

Werribee River picnic ground
Our first stop in the Wombat Forest was at the Werribee Picnic ground where we lunched in spite of the young bike riders continually roaring around the grounds. A few fungi were viewed here including some on the timber under the road bridge including the slimy white *Mycena austrororida.*

Wombat Forest
Many more were seen at spots on either side of the road about 1 km east along the road. These included a number of *Laccaria* 47, *Conchomyces* often brightly-coloured, *Crepidotus* 27-28, Rosy Coral Fungus *Ramaria* 88, Green Goblin *Dermocybe austroveneta* 20, *Cortinar* 14-15, Rainbow Fungus *Trametes versicolor* 78, Pineapple Amanita with its rough surface, Dung Bell Mottlegill *Panaeolus rickenii* 38. On a wet log was Brown Witch's Butter *Tremella frondosa* 92 which because of

its maturity was nearly black. Similar to the Fairy Castles was the Salmon Fairy Clubs *Ramaria ochraceo-salmonicolor* 87 with its common thick stem. A taste of the tiny Peppery Coral Fungus *Clavicorona piperta* 85 illustrated the reason for its common name. It was very similar to the Fairy Castle *Clavicorona* 85.

For a change of scenery and topic a few cars travelled home via Millbrook to view the construction site of the new railway bridge over the Moorabool. All the pylons were now in place. This bridge is to be part of the fast track to Melbourne.

Fran Hanrahan.

June Meeting Points

- 31 members and visitors were welcomed.
- Library: Noted that a selection of books from the library had been placed next to correspondence for members to peruse. Reminder of working bee (committee) on library planned for the morning of Sunday 4 July.
- Library: Volunteer to act as librarian for the club collection sought. Dulcie Brooke and Genny Binns offered services
- Club Campout at Apollo Bay. Members reminded of the campout and names of those planning to attend sought.

Show and Tell

- Carol Hall, Genny and Greg Binns: High Country Photos of MacNamara's Hut on Bogong High Plains.
- Genny Binns: Selection of newspaper cuttings from Margaret Rotheram.

Field Reports

- Elizabeth Fitzpatrick: Two Ibis and two cormorants (specific species not identified) at Lake Wendouree.
- Helen Burgess: Fungi at Observatory.
- Carol Hall: At Le Gerche Walk - Fly agaric fungi. Tiny fungi growing out of pine cones.
- Frank Harrap: Boobook Owl in Lal Lal Street, Buninyong.
- Helen Burgess: Fly agarics under Nothofagus pines at her home - Ballarat North. Pelicans still at Lake Wendouree, 24 biggest number.
- Peter Billing: White cockatoos.
- Helen Burgess: Galahs at her home which hasn't happened before.
- Dulcie Brooke: *Eucalyptus Ovata*, approximately 100 years old at her home has died as a result of drought.

Some Notes on Sir Joseph Banks

Contributor: Lyndsay Fink

Sir Joseph Banks was elected President oaf the Royal Society in 1778 and held the position for 42 years. Born in Lincolnshire, the son of a landholder and educated at Harrow, Eton and Oxford, he did not follow the pursuits of the rich, but collected rocks, plants and animals. He always called himself a botaniser.

He was elected a Fellow of the Royal Society, the premier scientific body of its time; members persuaded the Admiralty to send Captain Cook to observe the transit of the planet Venus across the sun. Banks with a staff of naturalists, artists and servants joined the *Endeavour,* collecting many specimens. This huge and carefully annotated collection was the start of a lifelong friendship with George III, known as Farmer George. Kept in Banks' house, the collection was viewed by many scientists from many nations who came to meet there. With the help of George III he established the famous Kew Gardens.

Well known for his work in botany, not so well known was his part in the Merino sheep industry. It was Banks who supported the colonisation of Australia. Strangely he vetoed the name *Australia* at first. He sponsored the appointments of Phillip King and of William Bligh, he wrote encouraging letters to Arthur Phillip and Lachlan Macquarie and had a free hand in arranging the expedition of Matthew Flinders and the *Investigator.*

Banks died in 1820. The Banksia plant, in its many forms, is his last living memorial, just discovered by him in Botany Bay.

Postscript to Greg Binns' query in last month's newsletter regarding local sightings of the Cape Pond Lily: Roger Thomas notes that since 1990 he has been aware of it at Ross Creek in a dam; south of Skipton; in Beaufort township; in the Yarrowee River at Brown Hill.

Calendar

July

Fri. 2	**Meeting:** David Clark—*Australia's Unique landscape.*
Sun. 4	**Excursion:** CHRL Australiana Room with Edith Fry 1.30pm.
Fri 16-Sun 18	**Club Campout,** Apollo Bay.
	Committee Meeting to be held at Apollo Bay.

August

Fri. 6	**Meeting:** Patrick-Jean Guay—Non-Passerine Birds of North America.
Sun. 8th	**Excursion:** Pat & Bill Murphy—Significant Trees north of Ballarat.

September

Fri. 3	**Stella Bedggood Memorial Lecture**: Paul Sinclair—*Healthy Rivers.*
Sun. 5	**Excursion:** *Goldfields Water-race Walking Trails* with John Gregurke.

Supper Duty: **July:** Pat & Bill Murphy **August:** Fran Hanrahan
September: Stella Bedggood Lecture—Committee

Committee

President ..... Mr. Peter Dalman
Vice-President..... Mrs. Carol Hall
Secretary..... Mr. John Gregurke
Treasurer..... Mr. Bob Curtain

Mr. Greg Binns .....
Miss Helen Burgess.....
Miss Maureen Christie.....
Mrs. Claire Dalman.....
Mrs. Carol Hall (Editor).....
Miss Fran Hanrahan.....
Mr. Les Hanrahan.....

Correspondence: PO. Box 328W, Ballarat West, 3350.

Email: Secretary:
Editor:

Website: www.ballarat.yourguide.com.au Click on *Local Info.* Search *Environment.*

Meetings are held at the Ballarat Horticultural Centre, cnr. Gregory & Gillies Sts (VicRoads 254 F8) on the first Friday of the month at 7.30pm.

Excursions: Depart from Ballarat Market Place (formerly Creswick Plaza) Creswick Rd., Ballarat (VicRoads 255 M10) at 9.30 am unless otherwise specified.

A monthly publication of the Field Naturalists' Club of Ballarat Inc.
Incorporation # A0014919P ABN 13 150 403 135